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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,994

06/22/2006

Yasuaki Sakanishi

2006_0983A

1674

52349

7590

05/01/2008

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EXAMINER

FAN, CHARLES C

ART UNIT

PAPER NUMBER

2628

MAIL DATE

DELIVERY MODE

05/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,994	Applicant(s) SAKANISHI ET AL.	
	Examiner CHARLES FAN	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/4/2008, 06.22/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 24 and 26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims do not expressly or implicitly require performance of any of the steps by a machine, such as a general-purpose computer. There are several tests that can be applied to determine whether claims are directed toward statutory subject matter. They include: (1) a process under 35 USC 101 requires a transformation of physical subject matter, tangible or intangible, to a different state or thing; (2) the “abstract idea” exception; and (3) the claim must recite a practical application, that is a useful, concrete, and tangible result. It is noted that claims that are broad enough to read on statutory and nonstatutory subject matter are considered nonstatutory. Claims 24 and 26 are directed to a computer program and do not require a transformation any physical subject matter, tangible or intangible, into a different state or thing. The claims are drawn simply to the computer software (i.e. software application), which is merely a set of instructions capable of being executed by a computer when the computer software is run on a computer for displaying a smear image taken with a scale factor. It is noted that claims to the computer program/software *per se* are not a process and without the computer-readable medium needed to realize the computer program/software’s functionally are nonstatutory functional descriptive material. See MPEP 2106 IV B 1(a). Specifically, a claim to computer program or a tangible

Art Unit: 2628

computer-readable medium encoded with a computer program/software is statutory because it is a computer element, which defines structural and functional interrelationships between the computer program and other component of a computer, which permits the computer program/software's functionality to be realized.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1, 7-8, 10, 15, 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US Pat No. 6,473,088) in further view of Barak (US Pat. No. 5,833,338).

In re claims 1, 22-26, Matsumoto et al. discloses a plurality of image generating apparatuses (Fig. 1, 101-104), each of which is operable to generate an image; and an display device displaying a plurality of images transmitted from said image generating apparatus through a multimode (Fig. 5), in which the plurality of images are simultaneously displayed on a display screen divided into a plurality of segments (Fig.

Art Unit: 2628

5), image generating apparatus includes: an image generating unit operable to generate an image (Fig. 1, 101-104), a transmission image adjustment unit operable to perform image adjustment on one of an image transmission and an image projection by said image projecting apparatus (Fig. 1, 101-104), and a transmission unit operable to transmit the adjusted image to said image projecting apparatus (Fig. 1, 201-204), and said image projecting apparatus includes: a receiving unit operable to receive the image transmitted from said image generating apparatus (Fig. 1, 301-304), an output image adjustment unit operable to judge a content of the adjustment performed on the received image, and then to perform readjustment on the image based on the judgment (Fig. 1, 900), and a display to display the image (Fig. 1, 700). It is noted that Matsumoto does not disclose a display device that projects the image. However, Barak discloses a projector used as a display device for a computer (Column 1, lines 7-13). It would have been obvious to one of ordinary skill to replace the television of Matsumoto with a projector of Barak with the motivation of having a cost effective way to have a larger screen.

In re claim 7, Matsumoto et al. discloses an index mode which displays a plurality of images simultaneously by dividing up the screen in a main area and a plurality of sub-areas (Fig. 9).

In re claim 8, Matsumoto et al. an index mode which displays a plurality of images simultaneously by dividing up the screen in a main area and a plurality of sub-areas (Fig. 9) and selecting an image to be readjusted to the main area (Fig. 9, Column 10, lines 48-60).

Art Unit: 2628

In re claim 10, Matsumoto et al. discloses the transmission image adjustment unit specify position on the projection screen (Fig. 1, 201- 204 to 900, Column 7, lines 45-54).

In re claim 15, Matsumoto et al. discloses the transmission image adjustment device is operable to set an area in the image to be transmitted (Fig. 1, 101-104, the computers send whole images and so inherently send areas in the image to the display).

5. Claims 2-6, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US Pat No. 6,473,088) in further view of Barak (US Pat. No. 5,833,338) and Parulski (US Pat. No. 5,414,811).

In re claim 2, it is noted that Matsumoto et al. and Barak does not explicitly disclose adjusting to full screen mode. However, Parulski discloses switching to full screen mode to be displayed (Fig. 5, Column 11, lines 25-33). It would have been obvious to one of ordinary skill to combine the multiple image display device of Matsumoto et al. and Barak with the full screen mode of Parulski et al. with the motivation of seeing more of one of the images.

In re claim 3, 4, it is noted that Matsumoto et al. and Barak does not disclose adjusting to full screen mode and output image adjustment device to adjust the changes from full-mode and multi-mode. However, Parulski discloses switching to full screen mode to be displayed (Fig. 5, Column 11, lines 25-33) and using the output image adjustment device to adjust the changes from full-mode and multi-mode (Fig. 3, 59,57,55). It would have been obvious to one of ordinary skill to combine the multiple

image display device of Matsumoto et al. and Barak with the full screen mode switching of Parulski et al. with the motivation of seeing more of one of the images.

In re claim 5, Matsumoto et al. and Barak discloses prioritization of the images on which is received first (Column 7, lines 55-64). (Fig. 6, Column 9, lines 47-57).

In re claim 6, Matsumoto et al. and Barak discloses prioritization of the images on selected images (Fig. 6, Column 9, lines 47-57). It is noted that Matsumoto does not disclose adjusting to full screen mode and output image adjustment device to adjust the changes from full-mode and multi-mode.

In re claim 12, 13, it is noted that Matsumoto et al. and Barak does not disclose the transmission image adjustment device is able to obtain resolution beforehand and perform adjustment on the resolution based on the information. However, Parulski et al. discloses a computer system, which can receive resolution as inputted by the user and using that information can adjust the resolution which can fit the display (Column 5, lines 14-31). It would have been obvious to one of ordinary skill to combine the multimode display of Matsumoto et al. and Barak and interchange the system (101) with the user inputted resolution of Parulski et al. with the motivation of getting the right resolution to fit the screen or window.

In re claim 14, it is noted that Matsumoto et al. and Barak does not explicitly disclose the transmission image adjustment device is able to change resolution. However, Parulski et al. discloses a computer system, which can receive resolution as inputted by the user and using that information can adjust the resolution (Column 5, lines 14-31). It would have been obvious to one of ordinary skill to combine the multimode display of

Art Unit: 2628

Matsumoto and interchange the system (101) with the user inputted resolution of Parulski et al. with the motivation of getting the right resolution to fit the screen or window.

In re claim 17, it is noted that Matsumoto does not explicitly disclose the user specifies the area. However, Parulski discloses the user specifies the image to be displayed (Column 13, lines 3-15). It would have been obvious to one of ordinary skill to combine the multi image system of Matsumoto with the user selected images of Parulski with the motivation of selecting the images one wants to see.

6. Claims 9, 11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US Pat No. 6,473,088) in further view of Barak (US Pat. No. 5,833,338) and Dayton et al. ("Photoshop 5/5.5 Wow! Book" Copyright 2000).

In re claim 9, it is noted that Matsumoto et al. and Barak does not disclose a separation unit able to separate images into layers and not display some layers. However, Dayton et al discloses separating images into layers and displaying layer or removing layers. (Page 90-91). It would have been obvious to one of ordinary skill to use the multi image display device of Matsumoto et al. and Barak and use the image modifying of Dayton with the motivation of selecting and displaying portion of an image.

In re claim 11, it is noted that Matsumoto does not disclose the transmission image adjustment device is operable to perform image adjustment so as to fit to the size on the screen. However, Dayton et al. discloses the ability alter the dimension of an image or the resolution of the image which is operable to fit it to the size of the screen (Page 55-56). It would have been obvious to one of ordinary skill to use the multi image

Art Unit: 2628

display device of Matsumoto and use the image modifying of Dayton with the motivation of see the whole image instead of portion of it.

In re claim 16, it is noted that Matsumoto et al. and Barak does not disclose a separation unit able to separate images into layers and not display some layers. However, Dayton et al discloses separating images into layers and displaying layer or removing layers. (Page 90-91, which one layer on the front and since the whole image is sent the front most layer is also sent). It would have been obvious to one of ordinary skill to use the multi image display device of Matsumoto et al. and Barak and use the image modifying of Dayton with the motivation of selecting and displaying portion of an image.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US Pat No. 6,473,088) in further view of Barak (US Pat. No. 5,833,338) and Taaffe et al. (US Pat. No. 5,046,027).

In re claim 18, it is noted that Matsumoto et al. and Barak does not disclose compression of the image or decompression of the image. However, Taaffe et al. discloses compressing the image (Column 2, 27-50) and transferring the data which is then decompressed (Column 6, lines 14-28). It would have been obvious to one of ordinary skill to combine the multi image display system of Matsumoto et al. and Barak with the integration of compression and decompression of Taaffe et al. with the need to reduce bandwidth usage and latency.

Art Unit: 2628

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US Pat No. 6,473,088) in further view of Barak (US Pat. No. 5,833,338) and Karasawa et al. (US Pub. No. 2002/0122075).

In re claim 19, it is noted that that Matsumoto et al. and Barak does not disclose authorization related to the display of the images. However, Karasawa et al. discloses authorization code need to access the images [0267]. It would have been obvious to one of ordinary skill to combine the multi image display device of Matsumoto et al. and Barak with the authorization code of Karasawa with the need to limit what other can access.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US Pat No. 6,473,088) in further view of Barak (US Pat. No. 5,833,338) and Johnson et al. (US Pat. No. 5,264,838).

In re claim 20, it is noted that Masumoto et al. and Barak does not disclose prediction of the image and adjusting the image. However, Johnson et al. discloses an anti-aliasing device which automatically predict the image is aliased and anti-aliases the image pre projection (Column 5, lines 15-35). It would have been obvious to one of ordinary skill to use the multi-image device of Matsumoto et al. and Barak with the anti-aliasing device of Johnson et al. with the motivation of making sure the images are a clear.

Art Unit: 2628

10. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US Pat No. 6,473,088) in further view of Barak (US Pat. No. 5,833,338) and Hua (US Pub. No. 2004/0013434).

In re claim 21, it is noted that Matsumoto et al. and Barak does not disclose a remote controller which is programmable with the ability to do user commands. However, Hua discloses a programmable remote control inputted by user commands (Fig. 3). It would have been obvious to one of ordinary skill to combine the multi image system display system of Matsumoto et al. and Barak with a remote control of Hua with the motivation to control what is displayed which also has the flexibility of being user programmed so as to do many operations efficiently.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ito (US Pat. No. 5,991,458) discloses the superimposing of multiple images. Buehler (US Pat. No. 5,264,837) discloses the combining of multiple images.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES FAN whose telephone number is (571)270-3550. The examiner can normally be reached on mon- fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571)272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2628

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CFan

/XIAO M. WU/

Supervisory Patent Examiner, Art Unit 2628